

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A wearable heart monitoring system for monitoring of a cardiac arrhythmia, said system comprising:
ECG sensors ~~for providing~~ configured to obtain patient heart data,
a conditioning and interpreting circuitry ~~for processing~~ that processes the heart data, the conditioning and interpreting circuitry comprising:
a real-time evaluator that measures and analyzes a histogram of a temporal distribution of an interval between successive corresponding characteristic peaks in an ECG spectrum during a plurality of successive heart cycles; and
an alarm generator ~~generation means for that generates~~ generating an alarm, ~~characterized in that said conditioning and interpreting circuitry comprises a real-time evaluator for measuring and analyzing a histogram of a temporal distribution of an interval between successive corresponding characteristic peaks in an ECG spectrum during a plurality of successive heart cycles, the alarm generation means being arranged to generate an alarm based on the analysis of said histogram.~~
2. (Currently amended) ~~[[A]]~~ The system according to claim 1, ~~characterized in that said system further comprising~~ comprises an RF-link that transmits ~~for transmitting~~ a further alarm to a remote monitoring station.
3. (Currently amended) ~~[[A]]~~ The system according to claim 1, ~~characterized in that~~ wherein the ECG sensors are housed on an elastic belt.

4. (Currently amended) ~~[[A]]~~ The system according to claim 3 ~~characterized in that the system further comprising comprises~~ electrical wiring for arranging electrical connections of the monitoring system, said wiring being integrated in the belt.

5. (Currently amended) ~~[[A]]~~ The system according to claim 4, ~~characterized in that wherein~~ a wire material has ~~[[a]]~~ substantially ~~the~~ a same elasticity as a material constituting the elastic belt.

6. (Currently amended) ~~[[A]]~~ The system according to claim 5, ~~characterized in that wherein~~ said system comprises at least two electrodes.

7. (Currently amended) ~~[[A]]~~ The monitoring system according to claim 1, ~~characterized in that wherein~~ said system further comprises a motion sensor.

8. (Currently amended) A method for alerting a patient for ~~an~~ a substantial probability of a cardiac arrest event, said method being based on results of continuous monitoring of a cardiac activity by means of a cardiac monitoring system comprising a set of electrodes, a conditioning and interpreting circuitry and alarm, ~~generator~~ generation means, ~~characterized in that said method comprises the steps of comprising:~~

–performing a continuous acquisition of data related to the cardiac activity ~~by means of~~ with the electrodes;

–processing the data for extracting a characteristic parameter ~~by means of~~ with the conditioning and interpreting circuitry, wherein the conditioning and interpreting circuitry is located on a physiological sensing belt in operative communication with the patient;

–performing a classification of the extracted characteristic parameter;

–generating an alarm with the alarm means-generator ~~when in case~~ the characteristic parameters falls within an alarm-relevant category.

9. (Currently amended) ~~[[A]] The method for alerting a patient for an substantial probability of a cardiac arrest event according to claim 8, characterized in, that wherein~~ an alarm with a high priority is generated in case of a sudden cardiac arrest.
10. (New) The method according to claim 8, wherein the alarm generator is located on the belt.
11. (New) A wearable heart monitoring system, comprising:
a sensor that produces a signal indicative of heart cycles, which have characteristic peaks from physiological data indicative of the heart cycles;
an interval detector that determines a temporal interval between characteristic peaks in successive heart cycles;
a real-time evaluator that classifies the temporal interval as a temporal histogram;
a logic unit that checks a pre-stored look-up table to determine whether an alarm-relevant classification occurred based on the temporal histogram; and
a signal generator that transmits a control signal indicative of the temporal histogram.
- 12 (New) The wearable heart monitoring system of claim 11, wherein the control signal includes an alarm condition when the temporal histogram is indicative of an arrhythmia.
13. (New) The wearable heart monitoring system of claim 11, wherein the alarm is a high priority alarm, thereby indicating a cardiac arrest.

14. (New) The wearable heart monitoring system of claim 11, wherein the signal is indicative of an approaching cardiac arrest.
15. (New) The wearable heart monitoring system of claim 11, wherein a change in successive temporal intervals indicates an abnormality in the heart cycles.
16. (New) The wearable heart monitoring system of claim 11, further including a thresholder that compares a selected characteristic peak in the temporal interval with a threshold value to determine when the signal generator transmits the signal.
17. (New) The wearable heart monitoring system of claim 16, further including iteratively increasing the threshold value each time the logic unit identifies an alarm-relevant classification occurred until a pre-set false alarm level is reached.
18. (New) The wearable heart monitoring system of claim 11, further including at least one electrode that obtains the physiologic data, wherein the at least one electrode is formed from at least one of an electrically conductive graphite with a silicon gel or a conductive rubber.
19. (New) The wearable heart monitoring system of claim 11, wherein the wearable heart monitoring system is part of an elastic belt configured to be worn by a patient.
20. (New) The wearable heart monitoring system of claim 11, further including an interference filter that subtracts signal interference from the temporal interval.